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MYCOLOGIA

VOL. XIV JULY, 1922 No. 4

CONTRIBUTIONS TO OUR KNOWLEDGE OF OREGON FUNGI—I

S. M. ZELLER

(WITH 6 FIGURES IN THE TEXT)

The literature dealing with the fungous flora of Oregon has been almost entirely limited to papers on parasitic fungi. Before it is possible to list accurately the fungi of such a relatively unexplored region a great amount of labor is necessary in the preservation of specimens with accurate notes and labels. It is the purpose of the writer to preserve specimens of Oregon fungi as opportunity is afforded and publish from time to time those lists and notes of species which have never been reported from the state or concerning which notes of interest have been obtained. This is the first installment of such lists. In certain groups of fungi many of the determinations were either made or verified by specialists.

Many of the ascomycetous forms were sent to Dr. Fred J. Seaver for identification, or the Oregon specimens were compared with those sent to Dr. Seaver from Seattle, Washington, several years ago. Dr. E. A. Burt has kindly identified most of the Thelephoraceae and many of the polypores. Dr. J. R. Weir and Dr. L. O. Overholts have aided in the determination of some of the polypores, and Dr. C. H. Kauffman and Dr. W. A. Murrill in the determination of some of the Agaricaceae. Many fungi of all groups have been sent to Dr. C. G. Lloyd for comparison. The aid of these men has been greatly appreciated.

The list as given here is in the order of groups and families as given in Saccardo's "Sylloge Fungorum," and colors are given

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according to the nomenclature established by Ridgway in "Color Standards and Color Nomenclature."

PHYCOMYCETES

1. Family CHYTRIDIACEAE

1. *Urophlyctis pluriannulatus* (B. & C.) Farlow.
In leaves of *Sanicula Menziesii,* west of Corvallis. June. Not infrequent. No. 1825.

ASCOMYCETES

1. Family PERISPORIACEAE

2. *Meliola abietis* (Cooke) Sacc.
This black leaf spot of *Abies grandis* was collected south of Corvallis. August. Infrequent. No. 1850.

2. Family SPHAERIACEAE

3. *Xylaria Longiana* Rehm.
On oak, Corvallis. April. Infrequent. No. 2001.

4. *Daldinia vernicosa* (Schw.) E. & E.
On burned-out trunk of *Quercus Garyana,* Corvallis. April. Rare. No. 2003.

5. *Hypoxylon atropunctatum* (Schw.) E. & E.
On bark of *Quercus Garyana,* Corvallis. April. Common. No. 2000.

6. *Gnomonia Coryli* (Batsch) E. & E.
On lower surface of leaves of *Corylus Californica,* Corvallis. June. Frequent. No. 2013.

7. *Lasiosphaeria strigosa* (A. & S.) E. & E.
On decayed *Alnus* stub, west of Alsea. August. Infrequent. No. 1963.

3. Family HYPOCREACEAE

8. *Nectria episphaeria* (Tode) Fries.
On *Diatrype* on hazel, Corvallis. May. Frequent. Nos. 1953, 1954, 1956.

9. *Nectria Coryli* Fuckel.
On *Salix,* Corvallis. Infrequent. No. 1939. Collected and determined by H. P. Barss.

10. *Nectria galligena* Bres.
Commonly found causing a canker on several varieties of apple and pear and one variety of quince. It has been identified on one native host, *Acer macrophyllum.* This species has been collected in many localities west of the Cascade Mountains. Nos. 1804, 1820, 1823, 1895, 2097, 2098, 2099, 2101, 2103, 2104, 2106–2112, 2174, 2175, 2213.

11. *Nectria coccinea* (Pers.) Fries.
This *Nectria* which resembles *N. galligena* in gross morphology is dis-

tinguished by the character and size of the spores and structure of the perithecium. *Nectria coccinea* has been collected in the vicinity of Corvallis on *Quercus Garyana, Acer circinnatum, Cornus Nuttallii* and *Salix* sp. Nos. 1803, 1938, 2095, 2100.

12. *Pleonectria berolinensis* Sacc.

On old canes of *Ribes,* Corvallis. April. Rare. No. 1925.

4. Family BULGARIACEAE

13. *Stamnaria Persoonii* (Moug.) Fuckel.

On *Equisetum,* Roseburg. Collected by F. H. Lathrop. October. Rare. No. 2031.

Although usually reported as saprophytic it seems to be parasitic in this case.

14. *Bulgaria inquinans* (Pers.) Fries.

On decayed wood, Corvallis. November. Frequent. No. 1980.

5. Family HELOTIACEAE

15. *Phialea alniella* (Nyl.) Sacc.

This little white, stalked discomycete is very common in the spring and makes a striking appearance as it covers the old female cones of *Alnus* which have dropped to the ground.

6. Family PEZIZACEAE

16. *Otidea leporina* (Batsch) Fuckel.

In coniferous woods, Corvallis and Aurora. November. Frequent. Nos. 1874, 2192.

17. *Aleuria aurantia* (Pers.) Fuckel.

Common in lawns and on campus of Oregon Agricultural College, Corvallis. Spring and fall until a freeze. No. 2210.

18. *Geopyxis cupularis* (L.) Sacc.

On ground where brush had been burned. South of Corvallis. April. Frequent.

19. *Discina ancilis* (Pers.) Sacc.

On ground in peach orchards, Kiger Island. April. No. 1910. A very common spring form in the humid portions of the Northwest.

20. *Pseudoplectania melaena* (Fries) Sacc.

On decaying vegetation in mixed forests, on the hills northwest of Corvallis and on Mary's Peak. March and June. Infrequent. No. 2090.

21. *Sarcoscypha coccinea* (Scop.) Sacc.

On decayed coniferous twig, Corvallis. February. Rare. No. 1892.

7. Family HELVELLACEAE

22. *Morchella angusticeps* Peck.

In prune orchard, Kiger Island. April. Frequent. No. 1926.

23. *Morchella crassipes* (Vent.) Pers.

On ground in old orchard, Philomath. April. Infrequent. No. 1924.

24. *Morchella deliciosa* Fries.

On ground in prune orchard, Corvallis. April. Infrequent. No. 1913.

25. *Morchella semilibera* DC.

On ground in prune orchard, Corvallis. April. Infrequent. Nos. 1914, 1916.

26. *Helvella crispa* Fries.

In mixed woods, Corvallis. November. Infrequent. No. 2202.

27. *Helvella elastica* Bull.

On ground in coniferous forest, Corvallis. April. Infrequent. No. 1998.

28. *Helvella lacunosa* Afzel.

On ground in coniferous forest, Corvallis and Mary's Peak. April. No. 1764.

This is the most common species of this order to be found in western Oregon. It appears most profusely in the autumn.

29. *Helvella infula* Schaeff.

On old log of *Pseudotsuga taxifolia,* on the east side of Alsea Mountain. November. Not infrequent. Nos. 1798, 2196.

30. *Gyromitra esculenta* (Pers.) Fries.

Elgin, Union County. April to May. No. 2094.

31. *Spathularia clavata* (Schaeff.) Sacc.

Very plentiful on ground in coniferous woods, Mary's Peak. November. No. 1876.

32. *Trichoglossum hirsutum* (Pers.) Boudier.

In humus in open grassy woodlot north of Corvallis. April. Infrequent. No. 2004.

This collection has uniformly 15-septate spores. The plants are black, 8–10 cm. high and solitary or gregarious.

8. Family TUBERACEAE

33. *Hydnotrya ellipsospora* Gilkey.

Under leaves of *Quercus* and *Pseudotsuga,* Corvallis. March. Rare. No. 1901.

34. *Tuber candidum* Harkness.

On diggings of wood rat under oaks, on campus of McMinnville College, McMinnville. December. This collection (No. 2164) was taken by the writer and identified by Dr. Helen M. Gilkey. This is the most common *Tuber* collected in California within the limited area of Alameda and Placer Counties which hitherto has been its known limits of distribution. This is the first report of the species from Oregon.

BASIDIOMYCETES

1. Family UREDINACEAE

35. *Puccinia Burnettii* Griff.

On *Sidalcea,* Linn County, east of Corvallis. July. No. 2243.

36. *Puccinia gigantispora* Bubak.

On *Anemone,* Mary's Peak. August. No. 2265.

37. *Puccinia Lapsanae* Fuckel.

On *Lapsona communis,* Corvallis. August. No. 2245.

38. *Polythelis thalictri* (Cher.) Arthur.
On *Thalictrum occidentale,* Corvallis. August. No. 2246.

2. Family USTILAGINACEAE

39. *Schizonella melanogrammia* (DC.) Schroet.
On *Carex,* Linn County, east of Corvallis. August. No. 2247.

3. Family TREMELLACEAE

40. *Gyrocephalus rufus* Bref.
On humus in coniferous woods, Corvallis. October. Common. No. 2038.

41. *Tremella frondosa* Fries.
On oak stump, Corvallis. Infrequent. October to November. Nos. 2051, 2190.

42. *Tremella lutescens* Pers.
On stumps and fallen dead wood, Corvallis. Frequent. October to November.

43. *Tremella mesenterica* Retz.
On oak stump, Corvallis. Infrequent. May. No. 1958.

44. *Naematelia encephala* (Willd.) Fries.
On *Pseudotsuga* and *Abies,* Corvallis. February. Frequent. Nos. 1894, 1901. This western variety is much larger than typical *N. encephala* and the core is pure white.

45. *Exidia recisa* Fries.
On dead bark of apple and other deciduous trees, Corvallis. November. Infrequent. No. 1968. This species has a translucent wine color and shades of brown.

46. *Exidia Zelleri* Lloyd.[1]
On *Sambucus glaucus,* Corvallis. October. Infrequent. No. 1775. "Plants applanate to gyrose, about 1 mm. thick, surface even; color when fresh pale purplish-gray, subtranslucent with faint violaceous cast, drying darker. Papillae very few, scattered, globose. Basidia globose, hyaline, 12–14 μ, imbedded in a thin layer, close to surface. Spores 6 x 20 μ, hyaline, curved or rarely straight."—Lloyd. This plant is very close to *Tremella violacea,* according to Lloyd, but differs in size, size and shape of spores, and in the fact that the basidia are embedded in a very thin layer.

47. *Dacryomyces aurantia* Schw.
On fir stumps, Corvallis. May. Infrequent. No. 1957.

2. Family CLAVARIACEAE

48. *Sparassis radicata* Weir.
Parasitic on roots of Douglas fir, Philomath. November. Rather frequent. No. 2163.

49. *Clavaria pistillaris* Fries.
On the ground in mixed woods, Mary's Peak, Tidewater and Corvallis. December to June. Frequent. Nos. 1726, 1967.

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[1] Lloyd, C. G. Mycological Notes **62**: 931. 1920.

50. *Clavaria corniculata* Fries.

On ground under *Pseudotsuga taxifolia,* near Corvallis. December. Frequent. No. 1972.

51. *Clavaria mucida* Pers.

On rotten oak log, Corvallis. December. Infrequent. No. 1971.

52. *Clavaria cristata* Fries.

On the ground in mixed woods. This is the most common white *Clavaria* in the woods about Corvallis. It appears after the rains start in the fall and can be found until the early spring. No. 1877.

53. *Clavaria abietina* Fries.

In fir woods on Mary's Peak trail. October. No. 1731.

This plant has a thickened base, the branches wrinkle longitudinally when dry. The flesh is white but turns greenish when bruised. It has a bitter taste. Common in fir woods in western Oregon.

54. *Clavaria botrytis* Fries.

In coniferous woods, Blue River. November. Nos. 2152, 2157.

55. *Clavaria vermicularis* Fries.

In mixed woods, Corvallis. October. Infrequent. No. 2037.

56. *Calocera cornea* Weinm.

On dead fir wood, Corvallis. September to October. Frequent. No. 2062.

57. *Typhula phacorrhiza* Fries.

On fallen alder leaves, Philomath-Alsea road on Alsea Mountain, about a month after the fall rains begin. Frequent.

The hair-like clubs usually stand about 7–12 cm. tall from small disk-shaped, brownish sclerotia, 7–11 mm. in diameter by 1.5–3 mm. thick. This form is common in thick stands of alder in western Oregon and Washington.

3. Family THELEPHORACEAE

58. *Craterellus cornucopioides* (L.) Pers.

On ground among *Gaultheria shallon* in a clearing of coniferous woods, near Mary's Peak, Benton County. December. Infrequent. No. 2167. Collected by C. C. Epling.

This plant was not reported west of Missouri in Burt's monograph. It is plentiful when found, and is larger than usual, reaching 12 cm. high and 7 cm. broad.

59. *Stereum fuscum* (Schrader) Quél.

On alder, Corvallis. May. Infrequent. No. 1948.

60. *Stereum purpureum* Pers.

On pear trunk, Corvallis. December. Infrequent. No. 2214.

No "silver leaf" has been observed in connection with infections of this fungus.

61. *Thelephora palmata* (Scop.) Fries.

On the ground in pathways in mixed woods. In the hills northwest of Corvallis and on Mary's Peak. March. Infrequent. No. 2091.

62. *Corticium lactescens* Berk.

On oak, Baldy Peak and Corvallis. March and September. Frequent. Nos. 1771, 1905.

63. *Coniophora cerebella* Pers.

This very active wood-destroying organism was found near Philomath, on the charred bark of *Thuja plicata, Pseudotsuga taxifolia* and *Tsuga heterophylla*. Although known from Washington and California *Coniophora cerebella* has not been previously reported from Oregon. Nos. 1795, 1796, 1797.

64. *Cyphella marginata* McAlpine.[2]

On twigs of peach, apple and almond, Marion, Benton, and Douglas Counties. May to July. Frequent. Nos. 1830, 1831, 1922, 1940, 2102.

Previously this fungus has been reported from Australia only. There is no record of the importation of nursery stock which would carry this fungus from Australia into Oregon. The fungus is inconspicuous and is perhaps of little, if any, economic importance. In Australia McAlpine observed this fungus on dead twigs of peach but in Oregon it is abundant on "die-back" twigs of peach and apple and has been found in one locality on almond. The cupules are minute, resembling fuzzy, gray or ochraceous goblets. They are peziza-like in appearance, about 0.5–1 mm. in diameter.

65. *Peniophora glabra* (B. & C.) Burt.

On Douglas fir, Corvallis. September. Infrequent. No. 1860.

66. *Peniophora glebulosa* Bres.

On decayed wood in mixed woods, Corvallis. August. Infrequent. No. 1813.

67. *Peniophora incarnata* (Fries) Cooke.

On oak, Corvallis. March. Infrequent. No. 1906.

68. *Peniophora cinerea* Fries.

On alder, Philomath-Alsea road on Alsea Mountain. November. Infrequent. No. 2230.

69. *Hymenochaete spreta* Peck.

On alder and Douglas fir, Corvallis. August and February. Infrequent. Nos. 1852, 1896.

70. *Aleurodiscus subcruentatus* (B. & C.) Burt.[3]

On *Pseudotsuga taxifolia* and *Abies grandis*, Corvallis. August and September. Frequent. Nos. 1722, 1809, 1951.

According to Dr. Burt this was "described from a collection made in Japan about 60 years ago by the U. S. Northern Pacific Exploring Expedition." Since the publication of his monograph of the genus *Aleurodiscus* he has "received Oregon collections and collections from Japan and California. This is not recorded as turning up before since the original collection."

71. *Aleurodiscus amorphus* (Pers.) Robh.

On fir bark, Corvallis. November. Frequent. No. 1791.

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[2] McAlpine, D. Fungous diseases of stone-fruit trees in Australia 120–122. 1902.

[3] Burt, E. A. Thelephoraceae of North America. XII. Stereum. Ann. Mo. Bot. Gard. **7**: 237. 1920.

4. Family HYDNACEAE

72. *Hydnum ochraceum* Pers.

On Douglas fir stump, Corvallis. August. Frequent. No. 1806.

73. *Hydnum erinaceus* Bull.

On Douglas fir log, Philomath. October. Frequent. No. 2135.

74. *Hydnum auriscalpium* Linn.

On cones and needles of *Pseudotsuga taxifolia,* Corvallis. November to January. Frequent. Nos. 2138, 2221.

75. *Hydnum repandum* Linn.

In open woods, various localities in western Oregon. November. Frequent. Nos. 2136, 2193.

The western plants are a deeper orange than the pale buff plants I have collected in the middle west.

76. *Hydnum subfuscum* Peck.

On coniferous bark, Mary's Peak trail. October. Frequent. No. 1724.

77. *Echinodontium tinctorum* Ellis.

A resupinate specimen found on *Abies grandis,* Corvallis. April. Frequent. No. 1912.

78. *Irpex lacteus* Fries.

On cherry stumps or causing heart rot of living trees from large pruning cuts. Fall and spring. Frequent. No. 1824. This is the most common heart rot of sweet cherry in western Oregon.

79. *Odontia fragilis* Karst.

On oak, Corvallis. August. Infrequent. No. 1848.

80. *Radulum Owensii* Lloyd.

On oak, Corvallis. March and April. Frequent. Nos. 1907, 1932.

5. Family BOLETACEAE

81. *Boletus chrysenteron* With.

In mixed woods, Corvallis. Comes with the early fall rains and persists until November. Common.

82. *Boletus luridus* Schaeff.

Under conifers, Oregon Agricultural College campus, Corvallis. September. Infrequent. No. 2058.

Although this plant has been reported from Washington and California, it had not previously been reported from Oregon.

83. *Boletus luteus* Fries.

Under conifers, Oregon Agricultural College campus, Corvallis. November. Common. No. 2035. This is a very common plant from early fall until the first freeze. It is always to be found under conifers in season.

84. *Boletus scaber* Fries.

Under various trees, Oregon Agricultural College campus, Corvallis. September. Infrequent. No. 2059.

If this were to be referred to one of Peck's varieties it perhaps would come nearest to *fuligineus.* Variety *testaceus* has also been observed in this locality.

85. *Boletus Zelleri* Murrill.

In coniferous woods, Corvallis. October to November. Frequent.

86. *Boletinus cavipes* Opat.

Under birch trees, Oregon Agricultural College campus, Corvallis. October. Infrequent. No. 2052.

This plant has not previously been reported west of the Rocky Mts.

6. Family POLYPORACEAE

87. *Cryptoporus volvatus* (Peck) Shear.

On *Tsuga, Pseudotsuga* and *Abies* in the Coast Range Mountains. September to November and spring. Frequent.

88. *Fomes annosus* (Fries) Cooke.

On *Pseudotsuga taxifolia* (log), Philomath-Alsea road. November. Infrequent. Nos. 1759, 2140.

89. *Fomes applanatus* (Pers.) Wallroth.

On wood of various deciduous trees, usually saprophytic but undoubtedly parasitic on the collar and roots of Italian prune trees. Frequent. Fall and spring. No. 1959.

The form of this fungus having a white context (*Fomes leucophaeus* Mont.) is very commonly found in western Oregon. This form has been observed upon thoroughly water-soaked, decayed wood of *Populus* and *Acer*. Specimens which were brought into the laboratory to dry became the usual brown color which progressed upwards from the tubes as the fungus dried out. Perhaps this white color is associated with a thoroughly saturated condition which does not allow of the usual oxidation.

For two years the progress of root rot in prune trees caused by *F. applanatus* has been watched with interest. In November, 1919, an orchard of about 20 acres in Douglas County was visited and many trees had blown over in a recent wind storm. The trees had blown over while in full leaf and some in full fruit. An examination of the fallen trees to ascertain the cause of root weakness revealed a decayed condition of the roots. Many roots exhibited resupinate fruiting bodies of *F. applanatus* and all of the fallen trees (about 20) had the white butt-rot characteristic of *F. applanatus* decay. In the spring of 1921 the same orchard was visited and many more trees were observed with fruiting bodies on the lower portion of the trunk and on the roots. Such trees had very loose footing. Usually the infection could be traced from wounds near the base of the trunk or on shallow roots probably caused by cultivation machinery. The trees were in good soil and apparently otherwise in good vigor except that the upper trunk and larger branches showed heart rot due to *Trametes carnea*. In this case *Fomes applanatus* is at least a destructive *facultative* parasite.

90. *Fomes igniarius* (L.) Gillet.

On apple trees, Canyonville, Douglas County, and Corvallis. May and February. Infrequent. Nos. 1900, 1921.

91. *Fomes pinicola* (Swend.) Cooke.

On peach and prune trees, western Oregon. Frequent. Nos. 1786, 1815.

92. *Fomes roseus* (A. & S.) Cooke.

On *Abies grandis,* Corvallis. March. Rare. No. 1908.

I have seen but one specimen which I can refer to this species. This was definitely perennial, and ungulate with a black surface.

93. *Polyporus arcularius* (Batsch) Fries.

On oak wood, Corvallis. August. Infrequent. Nos. 1987, 1989. Not previously reported from the Pacific coast.

94. *Polyporus chioneus* Fries.

On oak and maple, Corvallis. October. Infrequent. Nos. 1753, 1974. One of these numbers was referred to *P. trabeus* Fries by Mr. Lloyd, but it surely differs but little from *P. chioneus.*

95. *Polyporus dryadeus* (Pers.) Fries.

On *Acer macrophyllum* and *Abies grandis,* Mary's Peak and Cascadia, respectively. September. Not infrequent. Nos. 1765, 2061. The dozen or more applanate fructifications on maple were on a dead stub but the one obtuse specimen on *Abies* was on a living tree. Although usually reported as found on living oak this species of late has been reported on a variety of hosts.

96. *Polyporus floriformis* Quél.

On decayed maple, Corvallis. October. Infrequent. No. 2019. Although this species usually has an attenuate or lateral stem-like base my specimens were sessile. To my knowledge this form has not been reported from west of Wisconsin.

97. *Polyporus fragilis* Fries.

On *Abies grandis,* Corvallis. October. Infrequent. No. 2016. This plant is white at first as usual in this species but when touched it changes to livid pink or flesh-colored when dried or brick-red when a bruised portion is dried. The spores are alantoid, 1–1.5 x 5 μ.

98. *Polyporus galactinus* Berk.

On prune, Riddle, Douglas County. November. Infrequent. No. 1792.

99. *Polyporus hirsutulus* Schw.

On sweet cherry, Corvallis. April and May. Frequent. Nos. 1933, 1934, 1937.

This form has not been reported from west of Missouri but it perhaps occurs wherever *P. versicolor* (L.) Fries is found, for it is probably a segregate of that species.

100. *Polyporus hirtus* Quél.

On ground, Powers. October. Infrequent. No. 2040.

101. *Polyporus Macounii* Lloyd.

On maple, Corvallis. October. Frequent. No. 2054. Perhaps another segregate of *P. versicolor.*

102. *Polyporus picipes* Fries var. *castaneus* Lloyd.

On maple log, Mary's Peak. October. Infrequent. No. 1742. This is a very clean, neat form of the species. It has a uniform tawny-olive color.

103. *Polyporus pubescens* (Schumacher) Fries.

On cherry, Corvallis. April. Frequent. No. 1834.

104. *Polyporus rufescens* Pers.

On oak stump, Corvallis. November. Infrequent. No. 1793.

105. *Polyporus sensibilis* Murrill.

On *Abies grandis,* Corvallis and Mary's Peak. October. Not infrequent. Nos. 1754, 2018.

This plant has been reported once from Oregon by Dr. Murrill, the collection taken at Glenbrook.

106. *Polyporus Spraguei* B. & C.

On dead *Quercus Garyana,* Corvallis. October No. 2114.

I have in my herbarium (No. 546) a collection of this species taken in Seattle, Washington. This is a considerable extension of range for the species from the Mississippi Valley.

107. *Polyporus zonatus* Fries.

On cherry and pear, Corvallis and Medford. Frequent. Nos. 1893, 1899.

P. zonatus has very little to distinguish it from *P. versicolor,* of which it is perhaps a segregate.

108. *Hexagonia carbonaria* B. & C.

On charred wood, Corvallis. February. Infrequent. No. 1887.

109. *Poria contigua* (Pers.) Karst.

On decayed wood of *Quercus Garyana, Corylus californicus* and sometimes *Acer macrophyllum,* western Oregon. Very frequent. Nos. 1723, 1808, 1888, 1891, 1920, 2220.

This is a most common brown *Poria* in western Oregon. It is sometimes found reflexed where moss fronds have been followed but infrequently it has been found reflexed without apparent provocation.

Dr. L. O. Overholts says concerning this fungus, "I have European material from Romell with which it agrees exactly. Romell has written me that he considers *P. contigua* identical with *Trametes tenuis* Karst., and I am inclined to the same opinion." The writer has reflexed specimens among those cited above and perhaps the plant should be listed under *Trametes.*

110. *Poria sanguinolenta* (A. & S.) Fries.

On oak fence post, Corvallis. March. Infrequent. No. 1902.

111. *Trametes carnea* (Nees) Cooke.

On peach, prune and conifers, western Oregon. Late fall, winter and spring. Extremely common. Nos. 1760, 1783, 1826, 1827, 1862, 1885, 1909, 1930, 2146.

Trametes carnea causes more than 90% of all the heart-rot of prune and peach trees in the orchards of western Oregon. It is extremely destructive, producing a rot which cannot be distinguished from that produced by this fungus in coniferous woods. I believe this fungus to be a true *Trametes.* It does not become perennial. I have watched the same stumps for several seasons and the fruiting bodies die each season and new ones appear in their stead the following season. There seems to be layered growth marked by horizontal lines in vertical cuts through the context but this evidently represents periodicity of growth during a season rather than perennial growth. I believe this is distinct from the perennial *Fomes roseus.*

112. *Trametes hetermorpha* Fries.

On *Pseudotsuga taxifolia,* Corvallis. March. Infrequent. No. 2092.

113. *Trametes hispida* Bagl.

On *Populus,* Freewater. May. Rare. No. 2017 (O. A. C. Herb. 2123).

This large fruiting body, 18 x 10 x 7 cm., is more or less of a monstrosity for this species. The tubes are extremely variable and large, reaching 25 mm. in length. The variation seems mainly to be one of size for in microscopic characters it is not very different from *T. hispida.*

114. *Merulius brassicaefolius* Schw.

In November, 1919, Mr. C. E. Waterman of Newberg sent me a specimen of this fungus which he collected from a sill of Douglas fir wood. The sills are about 20 inches from the ground and resting on oak blocks. The specimen of decayed wood sent with the fungus is a brown, dry rot which runs very rapidly during humid weather. The hyphae in the lumen of the tracheids are hyaline, 3–4 μ in diameter and septate with occasional clamp-connections. This collection extends the range of this fungus west from Louisiana. No. 1780.

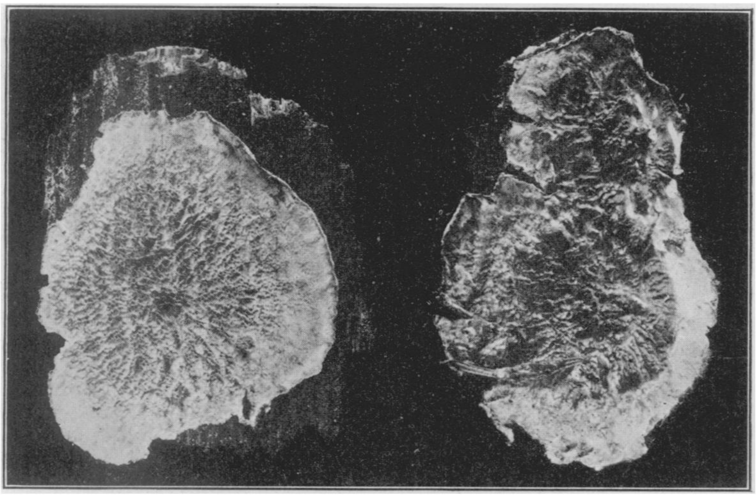

Fig. 1. Fructifications of *Merulius pilosus* Burt. Nat. size.

115. **Merulius pilosus** Burt, sp. nov.

Fructification resupinate, orbicular, fleshy, separable, drying capucine-buff, the margin entire, rather thick; hymenium at first with somewhat radial folds which become venosely connected and form shallow, angular, irregular pores about 1 to 2 to a mm.; in structure about 1–1¼ mm. thick, composed of densely arranged, hyaline hyphae, 3–4 μ in diameter, not incrusted; clavate gloeocystidia up to 60 x 10–12 μ are abundant in the subhymenial region; cylindric hair-like cystidia, 3–4 μ in diameter, emerge up to 40 μ in the hymenium; spores hyaline, even, 3 x 2 μ. Fructification 6–7 cm. in diameter.

On very rotten, decorticated, frondose wood, Corvallis, Oregon, September 28, coll. *S. M. Zeller 1772*, type (in Mo. Bot. Gard. Herb. 56849).

M. pilosus is distinguished by its capucine-buff color, fleshy structure, presence of gloeocystidia and cystidia, and the minute spores; gloeocystidia have not been found in any other North American species with the exception of *M. rugulosus* of the West Indies.

All of the above notes and diagnosis of *M. pilosus* was kindly sent to the writer by Dr. E. A. Burt. The accompanying photograph (Fig. 1) of the type was taken when the collection was made.

116. *Merulius tremulosus* Schrader.

Although Dr. Burt did not examine any specimens of this species from Oregon, it is very common on decaying, hard woods during the fall months.

6. Family AGARICACEAE

117. *Amanita muscaria* Fries.

In the sandy tide flats along Willamette River, Corvallis. September. Frequent. No. 2153.

This poisonous *Amanita* is very common in the early fall on the sandy bottom land along the Willamette river. The plants are very large and striking in color, the disk usually English red and the margin orange-chrome. A specimen reaching 28 cm. high and with a pileus 21 cm. broad weighed 3 lbs., 6 ozs.

118. *Amanita calyptrata* Peck.

In coniferous woods, Mary's Peak and Corvallis. October. Frequent. Nos. 1766, 2126.

119. *Amanita pantherinoides* Murrill.

In coniferous woods and open oak thickets, Corvallis. November. Frequent. No. 2150.

120. *Amanita solitaria* Fries.

Solitary on ground in oak woods, Corvallis. October and November. Rare. No. 2063.

This plant has not previously been reported from Oregon although it is known to grow on the Pacific slope in California. According to Dr. Gilkey it has been collected in past years in several counties in this vicinity. Our plants have practically no odor nor taste unless slightly farinaceous.

121. *Amanita chlorinosma* Peck.

Solitary on ground in scrubby oak thicket, Corvallis. October and November. Rare. Collected by Mr. Carl C. Epling (333).

This species is strikingly like *A. solitaria* in morphological characters differing, however, in size of spores and in odor. *A. chlorinosma* has a strong, marked odor. In the specimen cited above the odor was designated as " of potash or of strong alkaline urine."

122. *Amanitopsis vaginata* Fries.

In coniferous woods mostly; Mary's Peak. October. Common. No. 1778.

The common variety of this species to be found in western Oregon is *livida.* The white form, *alba,* is rarely to be seen. The grayish-mouse-colored variety attains a very large size in the mountains of the coast range. My collection has the pileus hair-brown in color, 10–18 cm. broad, and the plants reach 28 cm. high. Scales on the stipe are mouse-gray.

123. *Lepiota clypeolaria* Fries.

In mixed or coniferous woods, Corvallis. November. Commonly found west of the Cascade Mountains. No. 2183.

124. *Lepiota granulosa* Fries.

In mixed woods, Corvallis. October. No. 2033. This species is common throughout western Oregon.

125. **Lepiota pulcherrima** sp. nov.

Pileus 6–12 cm. broad, subhemispheric at first, then convex to quite plane, moderately fleshy, young buttons quite solid, acajon-red to Vandyke red at the center, venetian- or alizarine-pink on the margin, often fading to a silvery livid-pink in age; cuticle on margins of older specimens split; surface appearing velvety because of the innate-pubescence towards the center, nearly glabrous or silky on the margin or squamulose when closely covered by another pileus, becoming slightly appressed-scaly in age due to growth. Margin sterile. Flesh white, rather thin except disk. Gills free, white, close, broad, rounded behind, edges even. Stem 5–10 cm. long, 8–12 mm. thick, equal or tapering upward, slightly bulbose, peronate by a thin membrane colored like this pileus about one half to two thirds of the way up to the rather large, flaring, rather fleshy, persistent annulus, white within, white to pinkish above the annulus. Spores smooth, white, oblong, 3–4.5 x 5–8 μ, usually uniguttulate. Pleasant flavor. Odor mildly farinaceous.

Gregarious to caespitose. Growing from a distinct, heavy spawn in needle mould under *Pseudotsuga taxifolia.* (November to December.)

This is the most beautiful species of *Lepiota* with concolorous pileus and booted stem which the writer has ever seen. It is distinctly characterized by the rich color and surface of the pileus and the color and peronate character of the stem. It has been found at two stations in this locality and in one of these evidently growing from the same spawn for two seasons in succession.

Specimens examined: Oregon, Corvallis, *J. W. Severy* and *S. M. Zeller* 2123, type (in Zeller Herb. 2123, N. Y. Bot. Gard. Herb. and O. A. C. Herb. 3390); *S. M. Zeller* 2171, 2172 and *C. C. Epling* 72 (all in Zeller Herb.).

126. *Lepiota rubrotinctoides* Murrill.

In coniferous woods, Corvallis. This species is very common from October to December and lasts for about four weeks after the rains begin. This often would be mistaken for *L. rubrotincta* Pk. by eastern collectors but it differs in the darker almost black disk and the spores average considerably smaller. The stipe often has rosy tints especially below the annulus.

127. *Armillaria albolanaripes* Atkinson.

On ground in coniferous woods, Corvallis. October and November. Common. No. 2131. This species has been reported from Oregon and California, but the writer has collected it as far north as Seattle, Washington.

128. *Armillaria corticata* (Fries) Pat.

On maple, Corvallis. November. Nos. 2053, 2154. This species has the appearance of a *Pleurotus* except for the presence of a veil which leaves an evanescent annulus or remnants on the margin of the pileus. This is the first report of the species from Oregon.

129. *Tricholoma bicolor* Murrill.

In mixed woods, Corvallis. October to December. Frequent. Nos. 2137, 2124.

This beautiful buff *Tricholoma* has commonly been found in either deciduous or coniferous woods in and about Seattle, Washington, and near Corvallis, Oregon. It is not among the first Agarics to appear after the rains start in the fall, but comes on in about three weeks and may be found until the first freezing weather. This species usually appears to some extent again in the spring but not so abundantly as in the fall. The dry, pruinose, buff cap and the extremely bitter taste are the characters which distinguish this from other Pacific coast species of the genus.

130. *Tricholoma personatum* Fries.

In mixed or coniferous woods, September to December. Common.

This species is one of the most widely distributed of the Agarics in western Oregon. It is mentioned here because of the enormous size attained, pilei over 18 cm. broad having been measured. It has been collected as late in the winter as January 4. At McMinnville several perfect "fairy rings" were observed on December 2. One of these measured 15 feet in diameter.

131. **Tricholoma subannulata** (Peck) comb. nov.

In lawns under deciduous trees, Corvallis. October to November. Infrequent. Nos. 2195, 2222.

Unfortunately Peck described this species from dried specimens and included it in *Armillaria*.[4] In *North American Flora* (**10**: 30, 1914), Murrill recombined the species as *Melanoleuca subannulata* (Peck) Murr. Since the species was described from dried specimens some of the distinguishing characteristics were overlooked. The plants are cinnamon to Mars-brown when fresh and although viscid in damp weather the surface is often somewhat scabrous. The gills are white with pinkish tints becoming tan when bruised, and they distil moisture during humid weather. They are not broad, anastomose or fork in the middle or behind, broader and rounded behind, marked by distinct transverse ridges or striations which persist in the dried specimens. The stipe is usually short, stout, 4–10 cm. long and 1.5–5.5 cm. thick. The odor is strongly but pleasantly farinaceous.

132. *Clitocybe odora* Fries.

In open wood lots, usually in mixed woods, Corvallis and Philomath. October to November. Nos. 2116, 2176.

This species which has not been reported west of Michigan is a rather common species in the Willamette Valley. The pileus is usually 5–8 cm. broad but plants have been found 10 cm. broad.

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[4] Peck, Bull. Tor. Bot. Club **36**: 330. 1909.

133. *Pleurotus sapidus* Schulzer.

On maple, Corvallis. November. Rare. No. 2147.

The spores in ours are 8–11 x 3–4 μ, becoming a very distinct pale lilac in mass. The pileus is tan to ochraceous-yellow or gray. In *North American Flora*, the range of distribution is given as far west as the Rocky Mountains.

134. *Pleurotus serotinus* Fries.

On apple wood, Corvallis. December. No. 2069. This species has been observed on various hard woods very late in the fall, but it seems to be very frequent on winter-injured apple wood.

135. *Hygrophorus eburneus* Fries.

In oak thickets and woods, Corvallis. September to November. No. 2044. This is one of our most common early mushrooms.

136. *Hygrophorus miniatus* Fries.

In dense Douglas fir woods, on moss, about four miles west of Alsea. August. Observed but once and under conditions such that no collections were made. The plants were a deep vermillion with a white foot of the stem as in var. *sphagnophilus* Pk. but were growing in heavy mats of *Hylocomium triquetrum* instead of a Sphagnum bog.

137. *Lactarius pyrogalus* Fries.

In coniferous woods, Powers. October. No. 2041, collected by F. E. Price. One lone specimen of this poisonous species was sent in for identification. It is quite typical of those reported farther east.

138. *Russula ochrophylla* Peck.

One plant of this species was collected near Corvallis and brought in to our Mushroom Show in November. It was exceptionally large, measuring 14 cm., but agreeing in all other characters with the usual descriptions. Several specimens were observed in an oak grove at McMinnville in December.

139. *Cantherellus aurantiacus* Fries.

A typical specimen of this species was sent in from Elgin.

140. *Cantherellus floccosus* Schw.

In damp, thick coniferous woods, Corvallis and Mary's Peak. October to November. Not infrequent.

141. *Cantherellus infundibuliformis* Fries.

On damp soil in coniferous woods. Philomath. November. No. 2156. Although this fungus has never been reported from the Pacific states it is not a rare plant in western Oregon and Washington.

142. *Marasmius plicatulus* Peck.

Under pine on Oregon Agricultural College campus. December. No. 2173. This is a beautiful velvety species.

143. *Trogia crispa* Fries.

On prune bark, Corvallis. March. No. 2088. This is the first report of this species west of the Rockies. Collection was made by C. E. Owens.

144. *Lenzites saepiaria* Fries.

This species is mentioned here because of its occurrence as a wound parasite on peach and prune. It becomes quite a serious pest on peach trees when the orchards are adjoining coniferous woods. Nos. 1779, 1784, 1785, 1931.

145. *Lenzites vialis* Peck.

On pruning wounds of apple trees, Roseburg, Douglas County. May. Infrequent. No. 1994.

146. *Pholiota spectabilis* Fries.

At the base of Douglas fir stumps, Corvallis. October to December. Frequent. No. 2122.

This plant grows to extremely large sizes in Oregon. The writer has collected specimens with pilei 8 in. broad and Professor Lake reports one over 12 in. broad, his photograph of which I could not resist publishing herewith (Fig. 2).

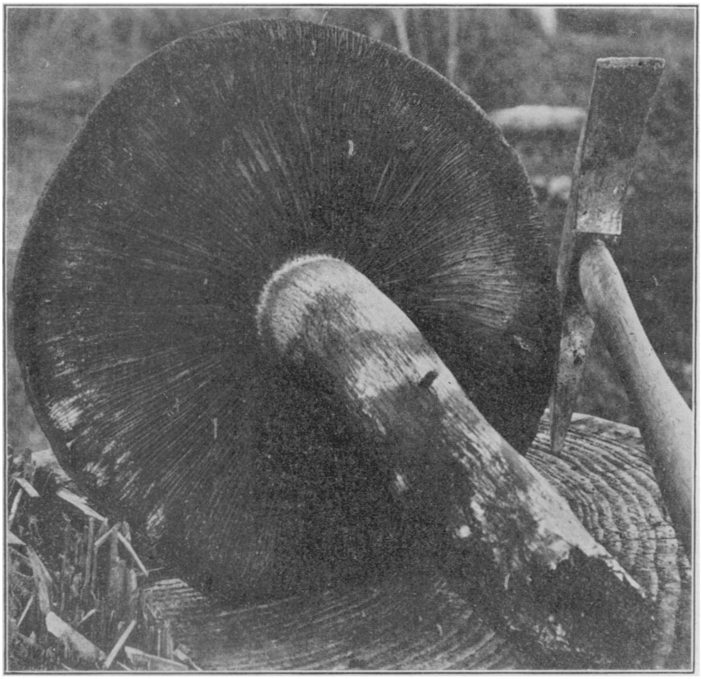

Fig. 2. Plant of *Pholiota spectabilis* having a pileus over 12 inches in diameter. Photo by Professor E. R. Lake.

147. *Inocybe fastigiata* Bres.

In mixed woods, Corvallis. October and November. Frequent. No. 2201.

148. *Naucoria semiorbicularis* Fries.

In lawns, Corvallis. October. Frequent. No. 2042.

149. *Agaricus diminutiva* Fries.

In mixed woods, Corvallis. October. Rare. No. 2029.

150. *Agaricus subrufescens* Peck.

In mixed woods, Corvallis. October. Rare. No. 2155.

This plant is mentioned here because to my knowledge it has not been previously reported from Oregon and because of its enormous size. The pileus of the plant collected measures 26 cm. broad and the stipe 24 cm. long with a diameter of 3.5 cm. above and 5.5 cm. below.

151. *Stropharia aeruginosa* Fries.

Under oaks on hills near Corvallis, November. Rather frequent. No. 2133.

152. *Stropharia ambigua* (Pk.) Zeller.

This is one of the most conspicuous of the Agarics to be found in coniferous and mixed woods of western Oregon during October and November. Nos. 1875, 2127.

153. **Stropharia rugomarginata** Zeller & Epling, sp. nov.

Pileus 6–12 cm. broad, fleshy, convex or broadly conic, becoming expanded to plane, glabrous, disk even; margin *reticulate-rugose* (pitted), pinkish-buff or cinnamon on the disk, drying cinnamon-buff to tawny-olive; flesh thin, whitish; lamellae crowded, thin, watery, broadly-adnate or slightly decurrent, edge undulate, minutely-serrate, concolorous becoming cinnamon, then tawny-olive in age, drying cinnamon-brown; spores ovoid-ellipsoid, appearing truncate at the apex because of a distinct germ-pore through the heavy exospore, usually obliquely-apiculate at the broader end, 8–9.5 x 4.5 μ, cinnamon-brown in mass when moist, mummy-brown when wet and Saccardo's umber when dry; basidia clavate-cylindric, 8.5 x 30–35 μ; stipe fleshy, solid or stuffed, glabrous, concolorous or whitish and shining above, subequal, tapering slightly either way, 6–12 cm. long, 12–15 mm. in diameter; annulus ample, persistent but sometimes disappearing at maturity, whitish. Odor and taste mild and not distinctive.

In lawns under conifers. Solitary or subgregarious. December.

Stropharia rugomarginata is distinguished by the characters of the pileus and spores. The reticulate ridges on the pileus cause a pitting of a band of the surface near the margin about 1–2 cm. broad. The disk is even. In the younger plants the reticulate-rugose character disappears with drying but in the older plants it is retained as a faint, smooth, reticulation. The spores are distinctive in shape and color. The egg-shaped spore has a distinct germ-pore at the apex causing a truncate appearance and is usually attached obliquely at the broad end. When the spores were placed in enzyme solutions they threw out the germ tubes through the germ pores. When first shed in mass they appear more or less ochraceous but as they dry they become purplish-brown.

Specimens examined: Oregon, Corvallis, *S. M. Zeller* 2180, type (in Zeller Herb.) and *C. C. Epling* 314 (in Epling Herb.).

154. *Hypholoma fasiculare* Fries.

On dead wood, both coniferous and deciduous, Corvallis. October until frost. Nos. 1869, 2185.

This is undoubtedly the most common *Hypholoma* in the northwest. It is usually reported as saprophytic on coniferous wood but it is often found on deciduous trees and shrubs. It grows from the dead portions of the crowns of cane fruits (*Rubus*) but it has not been determined whether this infection was originally parasitic or merely following death of portions of the host due to other causes. In the Medford district, Jackson County, fruiting bodies were found at the base of apple trees dying from root troubles, the cause of which is unknown to the writer who would hesitate to lay the cause definitely to this fungus. The symptoms of the diseased condition in these trees began by a slight yellowing of the foliage and reddening of the bark. The last year before the fruiting bodies of *Hypholoma fasiculare* appeared at the crown of the trees they bore a bumper crop but when tested they could be easily pushed over, for the roots were almost entirely decayed next to the crown. McAlpine[5] has reported *Hypholoma fasiculare* to be *parasitic* on the roots

129. 1902.

of raspberry and cherry in Victoria.

155. *Hypholoma capnoides* Fries.

On fence posts of *Abies* wood. Not commonly found; but abundant where found, Corvallis. November. Nos. 1868, 2204.

156. *Hypholoma hydrophilum* Fries.

Caespitose in large clusters on moss-covered, decayed logs, Philomath. November. No. 2197.

Our plant is not *H. hydrophilum* Fries (sense of Saccardo). These spores are 5–6 x 2.5–3 μ and there are no cystidia. The gills distil considerable moisture during damp weather.

157. *Hypholoma lachrymabundum* (Fries) Quél.

In coniferous woods, Corvallis. November. Rare. Epling No. 73.

This collection follows the description of *H. lachrymabundum* given by Kauffman[6] with the exception that it may be slightly darker. The spores are smooth, elliptical, *not curved* but flattish on one side.

158. *Hypholoma velutinum* (Fries) Quél.

On low ground under maples. Corvallis. October. Rare. No. 2055.

This collection agrees very well with my collection (506) of the same species taken in Tower Grove Park, St. Louis, Missouri. The spores are ovoid to *subcitriform with a hyaline apiculum, tuberculate,* dark purplish-umber when mature, 10 x 6–7 μ. The edges of the gills distil droplets darkened by suspended spores.

159. *Gomphidius oregonensis* Peck.

In damp coniferous or mixed woods, Corvallis. November. No. 2194.

This is one of the very common Agarics which comes shortly after the rains begin in the fall and may be found quite generally distributed in the wooded portions of western Oregon and Washington and is abundant. This was reported by Professor Lake as being a very palatable mushroom.

7. Family LYCOPERDACEAE

160. *Geaster delicatus* Morgan.

In humus soil under coniferous trees, Corvallis. October. Rare. No. 2047. This small species is mentioned here because it has not been reported from Oregon.

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[5] McAlpine, D. Fungous diseases of stone-fruit trees in Australia, 125, 129, 1902.

[6] Kauffman, C. H. Agaricaceae of Michigan, 259.

161. *Geaster hygrometricus* Pers.

In oak thickets and coniferous woods, Corvallis and Portland. October and November. Not common. Nos. 1975, 2115. This is the large variety which Lloyd[7] has designated as *gigantea.* Our largest specimen measures 11.5 cm. when expanded.

162. *Geaster lagenaeformis* Vitt.

On ground under oaks on hills to northwest of Corvallis. October. No. 2049. This plant is very characteristically flask-shaped in the button stages. It is not commonly found in western Oregon.

163. *Geaster Morganii* Lloyd.

In oak woods, near Corvallis. October to November. Rare. No. 2048.

This collection of *G. Morganii* is perhaps the first reported from the Pacific coast. This collection contains four opened "stars" and one button. The plants do not differ from the eastern plants and are easily distinguished from other local species by their reddish-brown color and the cone-shaped, sulcate mouth of the endoperidium.

164. *Geaster saccatus* Fries.

On ground under *Acer macrophyllum,* near Corvallis. October. Rare. No. 2046.

This plant agrees with the description as given by Fries and is the same as that distributed by Ellis and Everhart (Fung. Col. Exs. No. 1217) but as far as the writer can learn it has not been reported from the west before.

165. *Lycoperdon cruciatum* Rostk.

On the ground, campus of Oregon Agricultural College, Corvallis. September. Not infrequent. No. 2022.

166. *Lycoperdon elegans* Morgan.

On ground under mixed trees, Corvallis. September. Infrequent. No. 1883.

167. *Lycoperdon fuscum* Bonar.

On ground in dense coniferous woods near Corvallis. November to December. Frequent. No. 1880. This apparently grows year after year from the same spawn which can be turned up at any season of the year.

168. *Lycoperdon gemmatum* Batsch.

Pastures and open woods, Corvallis. October to December. Frequent. No. 1881.

169. *Lycoperdon pyriforme* Schaeff.

On decayed wood of various species, Corvallis. November to December. Frequent. No. 1884.

170. *Lycoperdon pratense* Pers.

In lawns, Corvallis. August to October. Frequent. Nos. 1720, 1854.

171. *Lycoperdon pusillum* Batsch.

In lawns, Corvallis. August to October. Frequent. No. 2024.

172. *Lycoperdon rimulatum* Peck.

In lawns of Oregon Agricultural College campus, Corvallis. August to September. Frequent. No. 2025.

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[7] Lloyd, C. G. The Geastrae. Bull. 2: 10. 1902.

173. *Lycoperdon Wrightii* Berk.

In spots where the grass is sparse, on Oregon Agricultural College campus, Corvallis. November. Infrequent. No. 2229.

174. *Bovista montana* Morgan.

On ground at the edges of coniferous woods, in lawns and cultivated gardens, Corvallis. May to September. Frequent. Nos. 1751, 1935, 2006.

175. *Bovista plumbea* Pers.

In cultivated gardens, Corvallis. August to September. Frequent. Nos. 2007, 2060.

176. *Catastoma circumscissum* (Berk.) Morgan.

In lawns, Oregon Agricultural College campus, Corvallis. August. Rare. No. 2208. Hard says this species " seems to be confined to the middle west."

177. *Calvatia gigantea* Batsch.

This species is found infrequently in pastures in various parts of western Oregon. A specimen from Multnomah County, collected in September, weighed 6 lbs. 7 oz. and measured 28 x 23 x 18 cm.

178. *Calvatia lilacina* Berk.

In open fields, lawns and cultivated gardens, Corvallis. August to November. Frequent. Nos. 1964, 2010, 2026.

Lloyd has called our western form var. *occidentalis*. It differs in being smaller and having less development of the sterile base.

179. *Calvatia rubro-flava* Cragin.

In mixed woods, north of Corvallis. September. Rare. No. 1995. I believe this is the first report of this species from the northwest.

8. Family SCLERODERMATACEAE

180. *Scleroderma cepa* (Vaill.) Pers.

Gregarious or caespitose, along sidewalks, High School ground, Corvallis. September and October. No. 2014.

The peridium in our plants is glabrous, sometimes cracked, warm buff or darker, sometimes buckthorn-brown, becoming light ochraceous-salmon to russet where bruised, reaching 12 cm. broad and 5 cm. high, about ⅓ emergent. Odor at first farinaceous, then disagreeable. Gleba a dark livid-brown just under the peridium and a warm blackish-brown or black near the center and base. Spores livid-brown to deep livid-brown under scope, spherical, sharply echinulate, 8–13 μ, according to maturity.

181. **Scleroderma hypogaeum** sp. nov.

Fructifications subglobose to irregular, firm but pithy when young, deliquescent with age, 1–7 cm. in diameter, color light buff to pale ochraceous-buff or even avellaneous, becoming bay to almost black when beginning to deliquesce. Surface glabrous or of innate-appressed fibrils. Mycelium of white rhizomorphs attached to the somewhat downward projecting sterile base. Peridium reaching 3 mm. thick, compact, hyaline; gleba at first white, then yellowish, turning purplish-umber at maturity (drying black where cut) ; tramal septa white, variable in thickness, of parallel, hyaline hyphae, gelatinizing and deliquescing at maturity; fertile cells at first filled with a hyaline, basidia-bearing capillitium, later filled with spores and remnants of capillitium; basidia hyaline, pyriform to subglobose, 10–13 x 8–10 μ, usually 4-spored; sterigmata short, 3–4 μ long; spores subglobose, dark purplish-umber, alveolate-reticulate, 11–25 μ (average 14 μ). Odor pleasant farinaceous when young but becoming strongly alkaline when deliquescing. Taste farinaceous when young.

In clay soil under lawn sod. October to November and sometimes in spring.

S. hypogaeum is like *S. cepa* in that the peridium is glabrous but is entirely different from other species in the alveolate-reticulate character of the spores and its entirely hypogaeous habit. The spores are larger than reported for most species of *Scleroderma*. They average about 14 μ but in extreme cases they have been found to measure 30 μ when fresh. The measurements reported above are based on the dry specimens. The photograph (Fig. 3) presented herewith illustrates the hypogaeous habit of the fungus. It very rarely comes even with the surface of the soil.

Very early stages of this species have been killed and embedded for a histological study of the development of the sporophores. Specimens examined, Oregon: Corvallis. *S. M. Zeller* 1567, 1725, type (in Zeller Herb. and O. A. C. Herb. 3391); Philomath. *S. M. Zeller* 2139 (in Zeller Herb.).

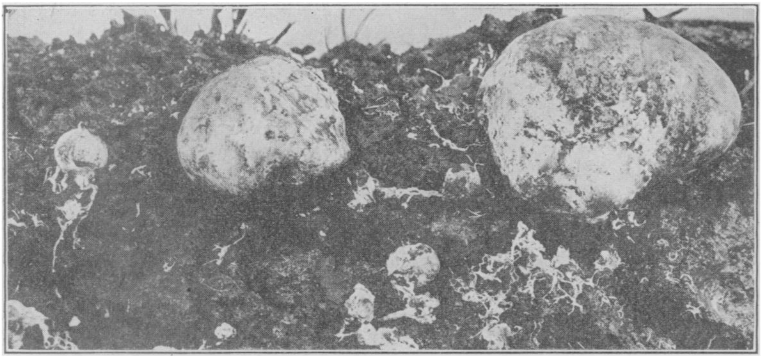

Fig. 3. *Scleroderma hypogaeum*, showing the hypogaeous habit of the plant. Nat. size.

182. *Scleroderma aurantiacum* Bull.

In path in open field, Corvallis. November. Rare. No. 2211. Marked by the brassy-yellow. peridium which is reticulate-rimose producing a more or less warty surface.

183. *Polysaccum turgidum* Fries.

In cultivated garden, Corvallis. September. Rare. No. 2050. Collected by Dr. Helen M. Gilkey, who says there have been as many as sixty fruiting bodies of this fungus in their garden during one autumn (Fig. 4).

The description of *P. turgidum* is the nearest to that of this collection that we could find available. The description of the Corvallis collection is given below for reference:

Fructifications clavate, 6–15 cm. broad above, 12–25 cm. long, firm; surface shiny amber to blackish-brown at maturity, areolate where the peridioles show through; peridium more or less gelatinous, up to 2 mm. thick below, very thin to deliquescent or entirely dehiscent above; gleba at first gelatinous then powdery, at first yellow-ochre, then purplish-black when still gelatinous, becoming mummy-brown when powdery; septa persistent, forming cavities containing the *peridioles* which are subspherical to gyrose, reaching 3 mm. broad and 7 mm. long, Natal-brown; stipe 6–8 cm. broad, 7–14 cm. long, surface more or less lacunose with large longitudinal cords or rhizomorphs, interior at first yellow-ochre then bister at maturity, solid. Spores 7.5–11 μ, spheric, echinulate with close, fine, sharp spines, brownish-purple under scope, Natal-brown in mass, 1–3 guttulate, exospore about 1–1.5 μ thick.

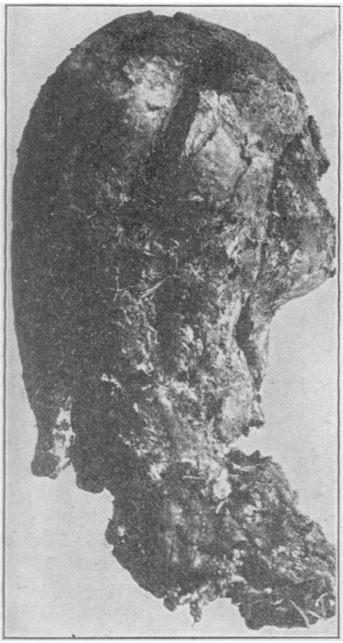

Fig. 4. *Polysaccum turgidum,* showing the general habit of a mature sporophore. ⅓ nat. size. Photo by Professor E. R. Lake.

184. *Arachnion album* Schw.

On lawns, Oregon Agricultural College campus, Corvallis. August. Infrequent. No. 1999.

9. Family HYMENOGASTRACEAE

185. *Rhizopogon diplophloeus* Zeller & Dodge.

In damp humus soil under *Quercus Garyana,* Corvallis. December. Rare. No. 2169.

186. *Rhizopogon induratus* Cooke.

In clay soil, Corvallis. December. Rare. No. 2168.

187. *Rhizopogon maculatus* Zeller & Dodge.

In humus or clay soil, under *Pseudotsuga taxifolia,* Corvallis. October to January. Rare. Nos. 2015, 2228.

This is the first report of this species outside of the type locality in California. It differs from the type in its thicker peridium (200 µ in places). The white outer layer of the duplex peridium is about 160 µ thick where the two layers total 200 µ. The outer layer varies in thickness while the inner layer is quite consistently 40 µ. The outer peridium is easily separable. The fibrils are almost white when fresh. The mycelium in the soil is in very fine fibrils hardly large enough to designate as rhizomorphs and gives to the soil a grayish-olive color. The fresh fructifications are almost odorless.

188. *Rhizopogon roseolus* (Corda) Zeller & Dodge.

In humus soil, under *Pseudotsuga taxifolia,* Corvallis. November. Not infrequent. Nos. 2132, 2141. The fructifications have a farinaceous odor when young but when ageing they possess an extremely foul odor.

189. *Rhizopogon rubescens*' Tul.

In wood rat diggings in leaf mould, under conifers, McMinnville and Alsea. August and December. Not infrequent. Nos. 1962, 2170.

190. *Arcangeliella caudata* Zeller & Dodge.

On ground in leaf mould under *Quercus Garyana,* Corvallis. April. Rare. No. 2005. There are no apparent differences between this collection and the type collection from California.

191. *Gautieria morchelliformis* Vitt.

In humus under hazel, seven miles west of Alsea. August. Rare. No. 1969. This collection differs from those previously examined in that the columella is branched and reaches half way to the summit of the fructification. The odor when fresh is strongly foetid.

192. **Gautieria Parksiana** Zeller & Dodge, sp. nov.

Fructifications gregarious, subglobose to irregular, 1–5 cm. in diam., some specimens drying light ochraceous-buff to ochraceous-tawny, others drying buckthorn-brown to mummy-brown; rhizomorphs white, 1–2 mm. in diam., usually branching from a distinct radicle; columella branched; peridium persistent, 240–420 µ thick, stupose, of very fine hyphae; gleba drying ochraceous-tawny to Dresden-brown; cavities 3–4 per mm., empty, globose to irregular; septa 65–100 µ thick, hyaline, of interwoven hyphae generally extending longitudinally; basidia clavate, arising from the trama obliquely, usually 2-spored, 28–38 x 7–10 µ hyaline (Fig. 5); sterigmata 5–14 µ long; spores ovate to citriform, buckthorn-brown in mass, pale-olivaceous under microscope, with 9–11 (usually 10) rounded, longitudinal ribs giving the appearance of striations, 7–11 x 14–19 µ, nucleus equitorially placed (Figs. 5, 6).

In soil under *Heteromeles* and *Pseudotsuga.* Oregon to California. March to June.

In a previous publication[8] we tentatively included *Chamonixia* Rolland in the genus *Gautieria* because in the early stages of the latter a peridium is evident. At that time we had not had the opportunity to collect and examine fresh specimens of species having a more or less persistent, thick peridium nor those having a thin peridium evanescent at an early stage of development. Since then the observations of one of us and the valuable data, which H. E. Parks of the University of California is continuously procuring, have proven to us yet more conclusively that *Chamonixia* should be reduced to synonymy or at least subgeneric rank. We have in *Gautieria Parksiana* possibly as true a *Chamonixia*-type as presented in *Chamonixia caespitosa* Rolland. The peridium is thick and persistent. Parks says that in plants (his collection Nos. 356, 812) which had dried in the soil during June the peridium still persisted although ruptured in many places. The Oregon collection cited below was taken in June and these plants exhibit a thick peridium. Parks' collections in June were taken from the same area of ten square feet of soil where the type collection of 47 fructifications had been collected during the previous March. We take great pleasure in dedicating this species to Mr. Parks.

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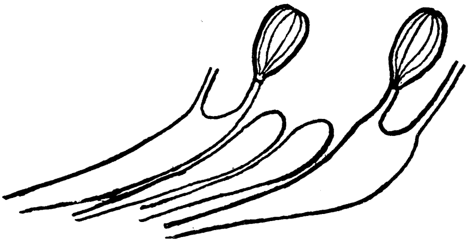
[8] Zeller, S. M., & Dodge, C. W. *Gautieria* in North America. Ann. Mo. Bot. Gard. **5**: 133–142. 1918.



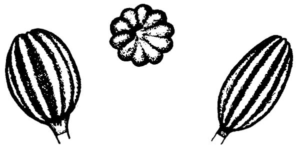


Fig. 5. Basidia and paraphyses of *Gautieria Parksiana*. × 600.
Fig. 6. Spores of *Gautieria Parksiana*. × 900.

Gautieria Parksiana is distinct from *Chamonixia caespitosa* in several characters. The bruised outer surface and cut surfaces of the peridium do not turn blue; the distinct, radicate rhizomorph leads to a branched columella which is not so distinct nor does it divide the fructification into such distinct portions as described for the columella of *Chamonixia caespitosa*. The spores of *G. Parksiana* are not guttulate and average smaller than those of *C. caespitosa*. We will defer recombining *C. caespitosa* until authentic material of this species is examined.

Specimens examined, Oregon: Benton County, Corvallis. *S. M. Zeller* (in Zeller Herb. 1970 and O. A. C. Herb. 3392). California: Saratoga. *H. E. Parks* 441, type (in Parks Herb. 441, in Zeller Herb. 1678, and in Dodge Herb. 1496); Guadaloupe Mines. *H. E. Parks* (in Parks Herb. 415 and Zeller Herb. 1692).

193. *Gymnomyces pallidus* Massee & Rodway.

Fructification irregular, 3–4 cm. in diameter, light-buff when fresh drying ochraceous-buff to yellow-ochre; peridium, stipe, and columella lacking; gleba light-buff when fresh, drying light ochraceous-buff; no sterile base; cavities 1–2 mm. broad when fresh, 3–4 to the mm. when dry, irregular; septa hyaline, about 80 μ broad, not scissile; basidia hyaline, clavate, 2-spored; 8–9 x 25–30 μ; sterigmata 3–5 μ long; spores subglobose, hyaline, 8–11 μ, verrucose, uniguttulate, often short-caudate; odor fragrant.

In clay soil under leaves of *Quercus Garyana,* Corvallis, Oregon. December. Rare. Collected by L. M. Boozer. No. 2208 (O. A. C. Herb. 3393).

The one fructification in the Corvallis collection is described above. It follows very closely the original description of *Gymnomyces pallidus* but the writer has not examined authentic specimens of this species. This plant has nearest affinities with *G. Gardneri* Zeller & Dodge through its spore characters, but is markedly different in that it has no columella. The fragrant odor is that so characteristic of many fleshy polypores. *Gymnomyces pallidus* has not been known outside of its type locality in Tasmania.

10. Family NIDULARIACEAE

194. *Cyathus stercoreus* Schw.

On soil, Mary's Peak, Benton County. October. Common. No. 1996.

195. *Cyathus vernicosus* Bull.

In cultivated soil, Corvallis. November. Common. No. 1977.

196. *Crucibulum vulgare* Tul.

On organic matter, Corvallis. October. Common. No. 2057.

197. *Sphaerobolus stellatus* Tode.

On decayed wood, Corvallis. November. Infrequent. No. 1799.

FUNGI IMPERFECTI

1. Family MELANCONIACEAE

198. *Cylindrosporium acerinum* Tracey and Earle.

On leaves of *Acer circinnatum,* Mary's Peak, Benton County. July. Frequent. No. 1943.

2. Family MONILIACEAE

199. *Sepedonium chrysospermum* (Bull.) Fries.

On *Boletus luteus,* Corvallis. September to November. Frequent. Determined by C. C. Epling. No. 2177.

200. *Mycogone pucciniodes* (Preuss) Sacc.

On *Boletus* sp., Corvallis. September. Rare. Determined by C. C. Epling. No. 1369.

201. *Mycogone roseola* Pound and Clem.

On *Helvella crispa,* Corvallis. December. Rare. No. 2178.

202. *Ramularia Oxalidis* Farlow.

On leaves of *Oxalis oregana,* Mary's Peak, Benton County. July. Frequent. No. 1944.

3. Family DEMATIACEAE

203. *Cercospora fusimaculans* Atkinson.

On *Panicum* sp., Mary's Peak Trail, Benton County. July. Infrequent. No. 1997.

To the writer's knowledge this species has been reported from the Gulf States only. This is an interesting extension of range.

4. Family TUBERCULARIACEAE

204. *Strumella coryneoidea* Sacc. & Wint.

On dead twigs of *Quercus Garyana,* on the lower part of Mary's Peak Trail, Benton County. October. Rare. No. 2009.

It was surprising to find this species ranging so far west since it is a native of the northeastern part of North America. Only a very small amount of the *sporodochial* material was found. I do not believe the disease is at all serious in Oregon for further extended search for it has been fruitless.

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